

We Claim:

1. A blood processing system comprising a blood processing set including a source of blood cells, and a blood component collection flow channel coupled to the source of blood cells including a blood cell storage container and an in-line filter to remove leukocytes from the blood cells before entering the blood cell storage container, the in-line filter including a fibrous filter medium, first and second flexible housings, a unitary, continuous peripheral seal formed by application of pressure and radio-frequency heating in a single process to join the first and second flexible housings to each other, as well as join the fibrous filtration medium to the first and second flexible housings, and

a pump station adapted to be placed into communication with the blood component collection flow channel to pump blood into the blood cell storage container through the in-line filter.

2. A blood processing system according to claim 1

further including a fixture to restrain expansion of the first and second filter housings as a result of pressure applied during operation of the pump station.

3. A blood processing system according to claim 2

wherein the source of blood cells includes a donor flow channel including a blood separation device to separate blood cells from donor whole blood.

4. A blood processing system according to claim 1

wherein the source of blood cells includes a donor flow channel including a blood separation device to separate blood cells from donor whole blood.

5. A system according to claim 1 or 2 or 3  
or 4

wherein the controller includes a function to  
derive a value reflecting volume of blood cells present  
5 in the blood cell storage container after passage through  
the filter as a percentage of volume of blood cells  
conveyed to the filter.

6. A system according to claim 1 or 2 or 3  
or 4

10 wherein the pump station includes a fluid  
pressure actuated pump and an actuator to apply fluid  
pressure to the pump.

7. A system according to claim 1 or 2 or 3  
or 4

15 wherein the blood cells comprise red blood  
cells.

8. A method of processing blood comprising  
using the blood processing system as defined in claim 1  
or 2 or 3 or 4.